

Entrez PubMed Nucleotide Protein Genome Structure CMM DUT Journals Life

Search PubMed for "gene expression" AND TMV AND "untranslated" Go Clear

☒ Limits Preview/Index History Clipboard Details

About Entrez

Text Version

Entrez PubMed

Overview

Help/FAQ

Tutorial

New/Noteworthy

E-Utilities

PubMed Services

Journals Database

MeSH Database

Single Citation Matcher

Batch Citation Matcher

Clinical Queries

LinkOut

Gubby

Related Resources

Order Documents

NLM Gateway

TOXNET

Consumer Health

Clinical Alerts

ClinicalTrials.gov

PubMed Central

Privacy Policy

## Limits: Publication Date to 1999

Display Summary Show: 20 Sort Send to Text

Items 1-10 of 10

One page.

- ☐ 1: [Skulachev MV, Ivanov PA, Karpova OV, Korpela T, Rodionova NP, Dorokhov YL, Atahevov JG.](#) Related Articles, Links  
Internal initiation of translation directed by the 5'-untranslated region of the tobamovirus subgenomic RNA I(2).  
Virology. 1999 Oct 10;263(1):139-54.  
PMID: 10544089 [PubMed - indexed for MEDLINE]
- ☐ 2: [Shivprasad S, Pogue GP, Lewandowski DJ, Hidalgo J, Donson J, Grill LK, Dawson WO.](#) Related Articles, Links  
Heterologous sequences greatly affect foreign gene expression in tobacco mosaic virus-based vectors.  
Virology. 1999 Mar 15;255(2):312-23.  
PMID: 10069957 [PubMed - indexed for MEDLINE]
- ☐ 3: [Kim YS, Choi D, Lee MM, Lee SH, Kim WT.](#) Related Articles, Links  
Biotic and abiotic stress-related expression of 1-aminocyclopropane-1-carboxylate oxidase gene family in Nicotiana glutinosa L.  
Plant Cell Physiol. 1998 Jun;39(6):565-73.  
PMID: 9697341 [PubMed - indexed for MEDLINE]
- ☐ 4: [Gallie DR, Kobayashi M.](#) Related Articles, Links  
The role of the 3'-untranslated region of non-polyadenylated plant viral mRNAs in regulating translational efficiency.  
Gene. 1994 May 16;142(2):159-65.  
PMID: 8194747 [PubMed - indexed for MEDLINE]
- ☐ 5: [Leathers V, Tanguay R, Kobayashi M, Gallie DR.](#) Related Articles, Links  
A phylogenetically conserved sequence within viral 3' untranslated RNA pseudoknots regulates translation.  
Mol Cell Biol. 1993 Sep;13(9):5331-47.  
PMID: 8355685 [PubMed - indexed for MEDLINE]
- ☐ 6: [Nicolaisen M, Johansen E, Poulsen GB, Borkhardt B.](#) Related Articles, Links  
The 5' untranslated region from pea seedborne mosaic potyvirus RNA as a translational enhancer in pea and tobacco protoplasts.  
FEBS Lett. 1992 Jun 1;303(2-3):169-72.  
PMID: 1607015 [PubMed - indexed for MEDLINE]
- ☐ 7: [Gallie DR, Feder JN, Schimke RT, Walbot V.](#) Related Articles, Links



Functional analysis of the tobacco mosaic virus tRNA-like structure in cytoplasmic gene regulation.

Nucleic Acids Res. 1991 Sep 25;19(18):5031-6.

PMID: 1923770 [PubMed - indexed for MEDLINE]



8: [Isomura Y, Matumoto Y, Murayama A, Chatani M, Inouye N, Ikegami M.](#)

[Related Articles](#), [Links](#)



Molecular cloning, sequencing and expression in Escherichia coli of the odontoglossum ringspot virus coat protein gene.

J Gen Virol. 1991 Sep;72 ( Pt 9):2247-9.

PMID: 1895062 [PubMed - indexed for MEDLINE]



9: [Gallie DR, Feder JN, Schimke RT, Walbot V.](#)

[Related Articles](#), [Links](#)



Post-transcriptional regulation in higher eukaryotes: the role of the reporter gene in controlling expression.

Mol Gen Genet. 1991 Aug;228(1-2):258-64.

PMID: 1886610 [PubMed - indexed for MEDLINE]



10: [Gallie DR, Walbot V.](#)

[Related Articles](#), [Links](#)



RNA pseudoknot domain of tobacco mosaic virus can functionally substitute for a poly(A) tail in plant and animal cells.

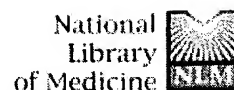
Genes Dev. 1990 Jul;4(7):1149-57.

PMID: 1976569 [PubMed - indexed for MEDLINE]

[Display](#) [Summary](#) [Show: 20](#) [Sort](#) [Send to](#) [Text](#)  
Items 1-10 of 10 One page.

[Write to the Help Desk](#)  
[NCBI](#) | [NLM](#) | [NIH](#)  
[Department of Health & Human Services](#)  
[Freedom of Information Act](#) | [Disclaimer](#)

Jan 27, 2004 10:17 AM



Entrez PubMed Nucleotide Protein Gene Expr Structure OMIM LIT Search  
Search PubMed for Go Clear  
Limits Preview/Index History Clipboard Details

About Entrez

Text Version

Entrez PubMed  
Overview  
Help / FAQ  
Tutorial  
New/Noteworthy  
Utilities

PubMed Services  
Journals Database  
MeSH Database  
Single Citation Matcher  
Batch Citation Matcher  
Clinical Queries  
LinkOut  
Cubby

Related Resources  
Order Documents  
NLM Gateway  
TOXNET  
Consumer Health  
Clinical Alerts  
ClinicalTrials.gov  
PubMed Central

Privacy Policy

Display Abstract Show: 20 Sort Send to Text

1: Curr Opin Biotechnol. 1997 Aug 1;8(4):411-6.

Related Articles Links



## Recombinant proteins from transgenic plants.

Franken E, Teuschel U, Hain R.

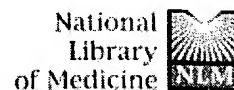
Bayer AG Agrochemicals Division, Research/Biotechnology  
Landwirtschaftszentrum Monheim, 51368, Leverkusen, Germany

Transgenic plants can express a wide variety of foreign genes and offer the opportunity of large-scale protein production in agricultural systems. The recombinant protein can serve both ex situ and in situ purposes. Due to significant progress in plant molecular biology, many different plant species can now be transformed and are even capable of producing very complex proteins such as antibodies or vaccines. Furthermore, recombinant proteins can mediate resistance against microbial pathogens, such as fungi or viruses, or protect transgenic plants from insect pests.

PMID: 9273847 [PubMed - as supplied by publisher]

Display Abstract Show: 20 Sort Send to Text

Write to the Help Desk  
NCBI | NLM | NIH  
Department of Health & Human Services  
Freedom of Information Act | Disclaimer



Entrez PubMed Nucleotide Protein Structure OMIM PDB Taxonomy

Search PubMed for [ ] Go Clear  
Limits Preview/Index History Clipboard Details

About Entrez

Text Version

Entrez PubMed  
Overview  
Help | FAQ  
Tutorial  
New/Noteworthy  
E-Utilities

PubMed Services  
Journals Database  
MeSH Database  
Single Citation Matcher  
Batch Citation Matcher  
Clinical Queries  
LinkOut  
Caddy

Related Resources  
Order Documents  
NLM Gateway  
TOXNET  
Consumer Health  
Clinical Alerts  
ClinicalTrials.gov  
PubMed Central

Privacy Policy

Display Abstract Show: 20 Sort Send to Text

1: Mol Biotechnol. 1995 Jun;3(3):225-36.

Related Articles Links

## The potential exploitation of plant viral translational enhancers in biotechnology for increased gene expression.

Turner R, Foster GD.

Botany Department, University of Leicester, UK.

The regulation of gene expression is extremely important for all organisms, not least for viruses that require a maximum rate of production of viral proteins to allow rapid multiplication and spread. Single-stranded positive-sense RNA viruses contain specific nucleotide sequences that can be used to elevate the expression of vital gene products to required high levels. Among plant viruses, translational enhancement has been documented widely, especially over the past few years. Reported candidates include one of the best known and most intensely researched virus, tobacco mosaic virus, members of the potyvirus group, and even a small satellite RNA of tobacco necrosis virus. Enhancement values range from 2-100-fold with different viruses, different reporter genes, and in different systems. Research indicates that an absence of secondary structure alone does not explain translational enhancement and despite attempts to determine the mechanism by which this enhancement occurs very little conclusions can be made as yet. Whatever the mechanism, the presence of these sequences upstream from an open reading frame results in an elevated level of protein production and may feature as important tools for biotechnology in the future.

### Publication Types:

- Review
- Review, Tutorial

PMID: 7552692 [PubMed - indexed for MEDLINE]

Display Abstract Show: 20 Sort Send to Text